

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An ink cartridge for an ink-jet recording apparatus comprising:
- a container body having an ink supply port;
- a storage element disposed on said container body;
- electrodes to be in contact with respective contacts provided in the recording apparatus accommodating the container body therein; and
- a positioning system ~~which is formed in the vicinity of~~ located between the ink supply port and the electrodes and is adapted to ~~engage contact~~ a positioning member of said recording apparatus, ~~wherein the positioning system contacts the positioning member~~ to maintain the electrodes in contact with respective contacts.
2. (original): The ink cartridge according to claim 1, wherein the positioning system includes at least one recess that has an opening at a leading end thereof in an ink cartridge insertion direction, and that is engageable with the positioning member formed as a protrusion.
3. (original): The ink cartridge according to claim 2, wherein the at least one recess includes a pair of recesses located opposite from each other with respect to the electrodes.
4. (original): The ink cartridge according to claim 2, wherein the recess has an upper end wall to be contacted with an upper end of the protrusion.
5. (original): The ink cartridge according to claim 4, wherein the wall extends in parallel to a direction in which the electrodes are arranged.

AMENDMENT UNDER 37 C.F.R. § 1.116
U. S. Application No. 10/025,821

B1
Am

6. (original): The ink cartridge according to claim 4, wherein a contact area between the wall and the positioning member is wider than a width of an area in which the electrodes are arranged.

7. (original): The ink cartridge according to claim 1, wherein the positioning system includes a blind hole opened at a bottom surface of the container body.

8. (original): The ink cartridge according to claim 1, wherein the storage element and the electrodes are mounted on a same flexible cable.

9. (currently amended): An ink cartridge for an ink-jet recording apparatus, comprising:
a container body having an ink supply port;
electrodes which are to be in contact with respective contacts provided in the recording apparatus and which are formed in a side where the ink supply port is provided;

a storage element provided to a predetermined area of the container body and connected to the electrodes; and

a positioning recessed portion open to the side where the ink supply port is provided, and engageable contactable with a protruding portion formed in the recording apparatus ~~wherein the positioning system contacts the positioning member~~ to maintain the electrodes in contact with respective contacts.

10. (original): The ink cartridge according to claim 9, wherein a circuit board having the electrodes is accommodated in a recessed portion formed in said container body.

11. (original): The ink cartridge according to claim 9, wherein said positioning recessed portion is formed at a position below a circuit board having the electrodes.

AMENDMENT UNDER 37 C.F.R. § 1.116
U. S. Application No. 10/025,821

12. (original): The ink cartridge according to claim 9, wherein a pair of the positioning recesses are provided to be located opposite from each other with respect to the electrodes.

13. (original): The ink cartridge according to claim 9, wherein said container body has a recessed portion for accommodating a circuit board having the electrodes, and has a wall which defines said recessed portion and is brought into contact with a top surface of said protruding portion.

14. (original): The ink cartridge according to claim 13, wherein the wall extends in parallel to a direction in which the electrodes are arranged.

15. (previously amended): The ink cartridge according to claim 13, wherein a contact area between the wall and the protruding portion is wider than a width of an area where the electrodes are arranged.

16. (original): The ink cartridge according to claim 9, wherein the storage element is mounted on a circuit board.

17. (original): The ink cartridge according to claim 9, wherein a flexible cable is connected to a circuit board having the electrodes, and the storage element is connected to the electrodes through the flexible cable.

18. (original): The ink cartridge according to claim 17, wherein the storage element is mounted on the flexible cable.

19. (original): The ink cartridge according to claim 9, wherein the storage element and the electrodes are mounted on a same flexible cable.

20. (previously added): The ink cartridge according to claim 1, wherein the positioning system contacts the positioning member to align the electrodes with respective contacts in at

131
cont
least two directions of a carriage moving direction, a paper feeding direction, and a vertical direction in a state in which the electrodes contact the contacts.

21. (previously presented): The ink cartridge according to claim 9, wherein the positioning ~~system~~ recessed portion contacts the positioning member to align the electrodes with respective contacts in at least two directions of a carriage moving direction, a paper feeding direction, ~~an~~ and a vertical direction in a state in which the electrodes contact the contacts.

Please add the following new claims:

22. (new): The ink cartridge according to claim 1, wherein the positioning system is located at an edge portion where a bottom wall formed with the ink supply port meets a side wall formed with the electrodes.

23. (new): The ink cartridge according to claim 1, wherein the positioning system extends from a bottom wall formed with the ink supply port to reach at least a lower end of a circuit board having the electrodes.

24. (new): The ink cartridge according to claim 22, wherein the positioning system extends from the bottom wall formed with the ink supply port to reach at least a lower end of a circuit board having the electrodes.

25. (new): An ink cartridge for an ink-jet recording apparatus having a protrusion and contact electrodes, comprising:

a container body having an ink supply port;

a storage element associated with said container body;

a recess disposed at a bottom of the ink cartridge, having an opening along an insertion direction of the ink cartridge, wherein a width of the opening along a direction perpendicular to

the insertion direction is substantially equal to a width of the protrusion along the direction perpendicular to the insertion direction; and

cartridge electrodes disposed at a side of the ink cartridge, contacting respective contact electrodes provided in the recording apparatus accommodating the ink jet cartridge therein.

26. (new): The ink cartridge according to claim 25, wherein the protrusion fitted into the recess fixedly maintains electrical contact between the cartridge electrodes and respective contact electrodes.

27. (new): The ink cartridge according to claim 25, wherein the cartridge electrodes are on a circuit board and the recess is disposed substantially on a centerline of the circuit board and the centerline of the circuit board is coincident with a centerline of the ink jet cartridge.

28. (new): The ink cartridge according to claim 25, wherein a the cartridge electrodes are on a circuit board and the recess is disposed substantially on a centerline of the circuit board and the centerline of the circuit board is offset from a centerline of the ink jet cartridge.

29. (new): The ink cartridge according to claim 25, wherein the recess is a first recess of a plurality of recesses and the protrusion is a first protrusion of a plurality of protrusions.

30. (new): The ink cartridge according to claim 29, wherein each of the plurality of recesses is disposed at the bottom of the ink cartridge, an opening of each of the plurality of recesses is disposed along the insertion direction of the ink cartridge, and a width of the opening of each of the plurality of recesses along a main scanning direction is substantially equal to a width of a respective one of the plurality of protrusions along the main scanning direction.

AMENDMENT UNDER 37 C.F.R. § 1.116
U. S. Application No. 10/025,821

B1
ant 31. (new): The ink cartridge according to claim 30, wherein the cartridge electrodes are disposed between the first recess and a second recess of the plurality of recesses along the main scanning direction.
